



## A new species of the spider genus *Neriene* from Southwestern China (Araneae: Linyphiidae)

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The linyphiid genus *Neriene* Blackwall, 1833 was created by Blackwall without indication of a type species. There have been debates about this genus since then. Thorell (1870) synonymized *Neriene* with *Linyphia* Latreille, 1804, while van Helsdingen split up the genus *Linyphia* and re-established *Neriene* (van Helsdingen, 1969). This system has been generally accepted. Currently, 55 species of *Neriene* have been reported in the world, of which 28 species are recorded in China (Platnick, 2010). Field collections in Yunnan Province, southwestern China were carried out in 2005, 2009 by colleagues of Hubei University. These surveys yielded one new species of the genus *Neriene*, which is described here.

Specimens were examined with an Olympus SZX16 stereomicroscope; details were further studied with an Olympus BX51 compound microscope. All illustrations were made using a drawing tube. Male palps and female epigyna were examined and illustrated after dissection from the spider body. Vulvae were cleared in boiling KOH solution to dissolve nonchitinous tissues, and the embolic division of male palps was excised by breaking the column (the membranous connection between the suprategulum and the radix). Photos were taken with a Cannon G10 digital camera (14.7 megapixels) mounted on an Olympus SZX16 stereomicroscope. The digital images depicting the habitus and genital morphology were a composite of multiple images taken at different focal lengths along the Z axis and assembled using the software package Helicon Focus 3.10. Left appendages (e.g., palps, legs, etc.) were depicted unless otherwise stated. Most hairs and macrosetae were usually not depicted in the final drawings. The photos of the type specimens are included in this paper and other related photos have been posted online (Li & Wang 2010). All measurements were obtained using an Olympus SZX16 stereomicroscope and are given in millimeters. Eye diameters were taken at the widest point. The total body length excluded the length of the chelicerae or spinnerets. The leg measurements are given in the following sequence: total (femur, patella +tibia, metatarsus, tarsus). The terminology used in text and figure legends follows van Helsdingen (1969).

Anatomical abbreviations are used in the text and figures as follows. Male palp: ALP—anterior projection of LC; DLP—dorsal projection of LC; E—embolus; EM—embolic membrane; LC—lamella characteristica; LLP—lateral projection of LC; P—paracymbium; PLP—posterior projection of LC; R—radix; TA—terminal apophysis. Epigynum: FG—fertilization groove; S—spermatheca; SC—scape; SG—spiral groove; TP—turning point. Somatic character: AER—anterior eye row; ALE—anterior lateral eye; AME—anterior median eye; AME–ALE, distance between AME and ALE; AME–AME, distance between AMEs; AMEd—diameter of AME; PER—posterior eye row; PLE—posterior lateral eye; PME—posterior median eye; PMEd—diameter of PME; PME–PLE, distance between PME and PLE; PME–PME, distance between PMEs.

### *Neriene poculiforma* new species

Figs 1–2

**Type material:** *Holotype* (male, Linyphiidae-YN-1): CHINA: Yunnan Province, Xishuangbanna Dai Autonomous Prefecture, Mengla County, Menglun Town, Xishuangbanna Natural Reserve, 1 september 2009, leg. Zhenyu Wang; *Paratypes*: same location and dates as above, 3 males and 25 females; collection site as above, 11 to 16 October 2005, leg. Jian Chen and Fengxiang Liu, 50 females.

**Etymology:** The specific epithet is taken from the Latin adjective '*poculiforma*', referring to the poculiform (cup-shaped) distal embolus.

**Diagnosis:** This new species is similar to *Neriene herbosa* (Oi, 1960) and *Neriene brongersmai* van Helsdingen, 1969 in having narrower paracymbium without broad and flattened distal arm, median apophysis with hook-shaped tip of dorsal arm and membranous ventral tip, the presence transversal sclerite and the semicircular atrium opening, but can be distinguished from them by the cup-shaped embolic end, the well developed lamella characteristica in males, by the